June 17, 2008

Via Electronic Filing

Ms. Marlene H. Dortch, Esq.
Secretary
Federal Communications Commission
445 Twelfth Street, SW, TW – A325
Washington, DC 20554

Re: WT Docket Nos. 07-195, 04-356, 07-16 and 07-30 – Notification of Oral Ex Parte Presentation

Dear Ms. Dortch:

On June 16, 2008 John Muleta, Michael R. Gardner, Esq., Paul Kolodzy of Kolodzy Consulting, Greg Rohde of E-Copernicus and the undersigned, on behalf of M2Z Networks, Inc., met with Commissioner Jonathan S. Adelstein, Renee Crittendon and Daniel Senter to discuss technical issues in AWS-3 proceeding. The conversation covered four key issues:

1. The importance of the Commission following the 700 MHz technical precedent which incorporated reasonable OOBE limits and were agnostic both to the use of FDD and TDD and the proximity of mobile transmitters to mobile receivers in the band. On this point, M2Z explained that there is no technical or policy justification for the stark departure from this precedent sought by other parties.

2. That the Commission anticipated the deployment of TDD services in the AWS-3 and (later that year) specifically designed the AWS-1 band plan so that the certain licensees could manage adjacent band interference internally. This is precisely why the AWS-1 F block is 10 MHz wide and most of the "interior" AWS-1 bands are 5 MHz wide. The efforts of some AWS-1 licensees to severely limit the adjacent band emissions in the AWS-3 band amounts to an untimely reconsideration of the Commission's 2003 and 2005 determinations that they must internally address these concerns.

3. That harmful interference between AWS-3 and AWS-1 is: (i) rare; (ii) easily avoided (by actions from either the AWS-3 licensee or the AWS-1 licensee or both); and (iii) limited in the unlikely event that they occur.

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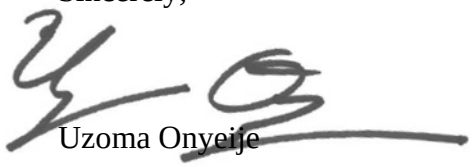
4. That AWS-3 and AWS-1 licensees have adequate incentive to cooperate to avoid interference in light of the mutual interference case presented in these bands. While AWS-1 licensees have a chance of experiencing mobile-to-mobile interference, the AWS-3 licensee faces a chance of base-to-base interference. Far from lacking incentive to negotiate with the AWS-1 licensee, as some parties have suggested to the Commission, the AWS-3 licensee has *more incentive* to cooperate and work jointly to avoid interference because base-to-base interference into the 2155-2180 MHz band is static while the potential of mobile to mobile interference into the AWS-1 band is highly probabilistic. Many of the technical rules proposed by AWS-1 licensees would, however, unnecessarily shift the delicate balance in a manner that would lead to a unilateral interference case.

Enclosed is a copy of the presentation we provided at the meeting. Pursuant to Section 1.1206(b) of the Commission rules, an electronic copy of this letter is being filed. Please let me know if you have any questions regarding this submission.

Sincerely,



Uzoma Onyeije

cc: Commissioner Jonathan S. Adelstein
Ms. Renee Crittendon

M2Z networks

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OVERVIEW OF TECHNICAL ISSUES CONCERNING THE AWS-3 SERVICE RULES

June 16, 2008

Overview

I. The FCC should not depart from its most recent technical precedents and impose rules that would preclude broadband services in the AWS-3 band.

II. The Commission previously granted AWS-1 licensees with additional spectrum specifically in order to have them address adjacent band interference and AWS-1 licensees were aware of this fact.

III. The potential for harmful interference between AWS-3 and AWS-1 is rare under a proper probabilistic analysis, easily avoided and limited (if it does occur).

IV. AWS-3 and AWS-1 licensees have every incentive to cooperate to avoid interference.

I. The FCC should not depart from its most recent technical precedents and impose rules that would preclude broadband services in the AWS-3 band.

- In the 700 MHz proceeding, the FCC used liberal rules including an OOBE of 43 +10 log (P) despite the potential for the exact interference issue raised here (mobile devices in close spectral proximity). This is a very reasonable approach that was satisfactory in the 700 context (without the need for guard bands) and can work here, too.
- The current FCC order already gives the AWS-1 licensees substantial protection as it would limit out-of-band emissions to less than 2 percent of what was permitted in AWS-1 and 700 MHz.[1]
- AT&T and Verizon Wireless seek limitations that amount to 1/50,000th (0.002%) of the out-of-band emissions permitted in AWS-1 and 700 MHz.
- T-Mobile wants no uplink emissions.
- The proposals of these incumbents are inconsistent with precedent and would preclude TDD operations needed to support broadband in AWS-3.

[1] **The difference between a 43 + 10 log (P) OOBE and one set at 60+10 log (P) appears deceptively minute at first glance. It is important to remember, however, that these numbers are based on a log scale. So, for example, a 3dB increase (to 46 +10 log (P)) results in a 50% reduction in emissions. Using the following formula: 10^(-x/10) -- where x represents the 17 dB difference between 43 and 60, the actual emissions are 1/50th (2%) of the emissions permitted in AWS-1 and 700 MHz.**

II. The Commission previously granted AWS-1 licensees with additional spectrum specifically in order for them to internally address adjacent band interference and AWS-1 licensees were aware of this fact.

- In 2003, the Commission stated that its decision "provides licensees with maximum flexibility to resolve adjacent band interference issues" by "placing the larger 10 and 15 megahertz blocks at either end of the two bands, licensees in these segments will have sufficient bandwidth and maximum flexibility to resolve adjacent band interference concerns." *See* FCC 03-251 ¶ 43 (Nov. 23, 2003).
- In 2005, the Commission stated: "In the AWS-1 Service Rules Order, the Commission stated that by placing the larger 20 and 30 megahertz blocks at either end of the two bands, licensees in these segments will have sufficient bandwidth and maximum flexibility to resolve adjacent band interference concerns. That rationale stands." *See* FCC 05-149 ¶ 19 (Aug. 15, 2005).
- Internalized adjacent band interference resolution in AWS-1 is consistent with the FCC's 2003 determination that TDD would likely be deployed in AWS-3. *See* FCC 03-16 ¶ 69 (Feb. 10, 2003)
- The Commission required the AWS-1 licensees to perform due diligence "on all marketplace and technical factors" prior to Auction 66. In May 2006, M2Z filed a license application seeking to use TDD in AWS-3. Auction 66 commenced later in 2006 with no TDD-related objections.
- The AWS-1 licensees should develop equipment commensurate with potential spectral adjacencies: *i.e*. incorporate filters into their handsets that are consistent with their license rights rather than those that expose AWS-1 devices to additional interference.

III. The potential for harmful interference between AWS-3 and AWS-1 is rare under a proper probabilistic analysis, easily avoided and limited (if it does occur).

- There must be the simultaneous alignment of several independent events for there to even be a chance of harmful interference.
- The AWS-3 and AWS-1 licensee can employ a myriad of mitigation techniques.
- AWS-1 licensees can further mitigate interference concerns (without a loss of network capacity) by using their alternative frequencies when interference occurs.
- If after all these measures harmful interference occurs, it would be limited in duration, time and geography.

IV. AWS-3 and AWS-1 licensees have every incentive to cooperate to avoid interference.

- Cooperation is standard practice in the wireless industry and occurs whenever there are mutual interference concerns, even among cellular carriers.
- AWS-3 faces the potential of continuous base to base harmful interference concerns.
- AWS-1 faces the potential of intermittent mobile to mobile harmful interference concerns.